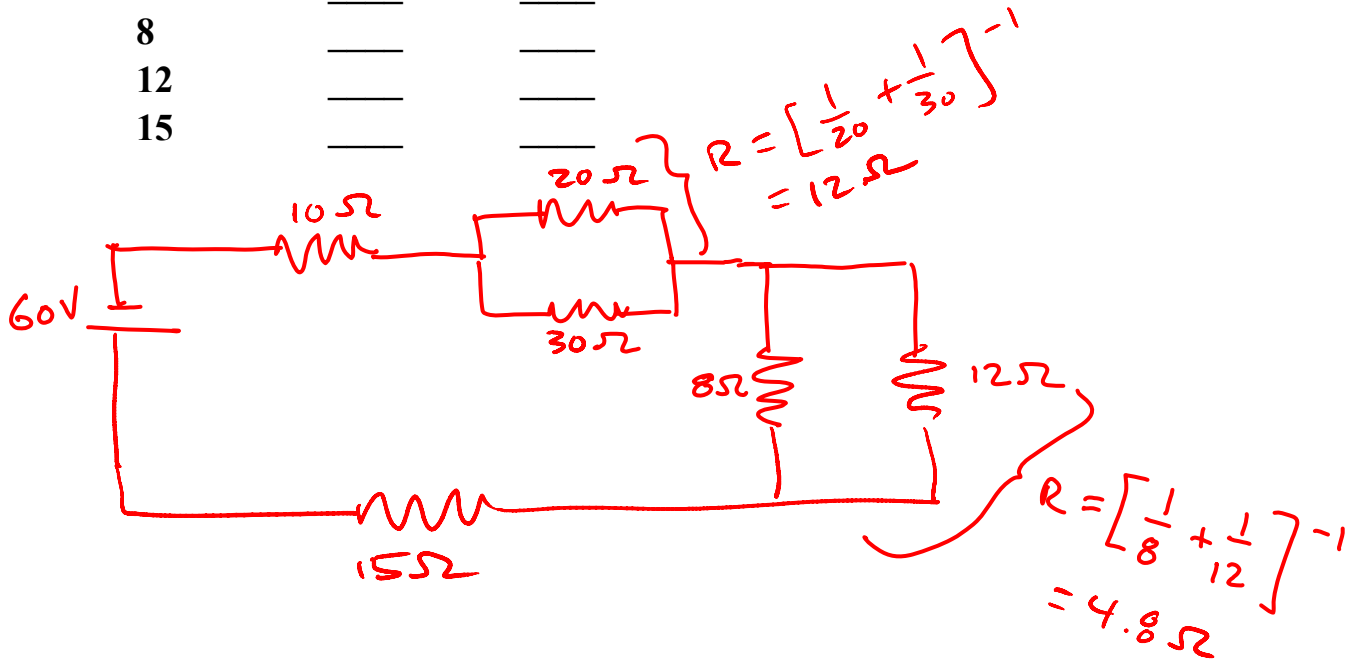


Example #11: Complete the table for the circuit on the previous page:

R (Ω)	V (V)	I (A)
10	_____	_____
20	_____	_____
30	_____	_____
8	_____	_____
12	_____	_____
15	_____	_____



→ Redraw a simplified circuit:

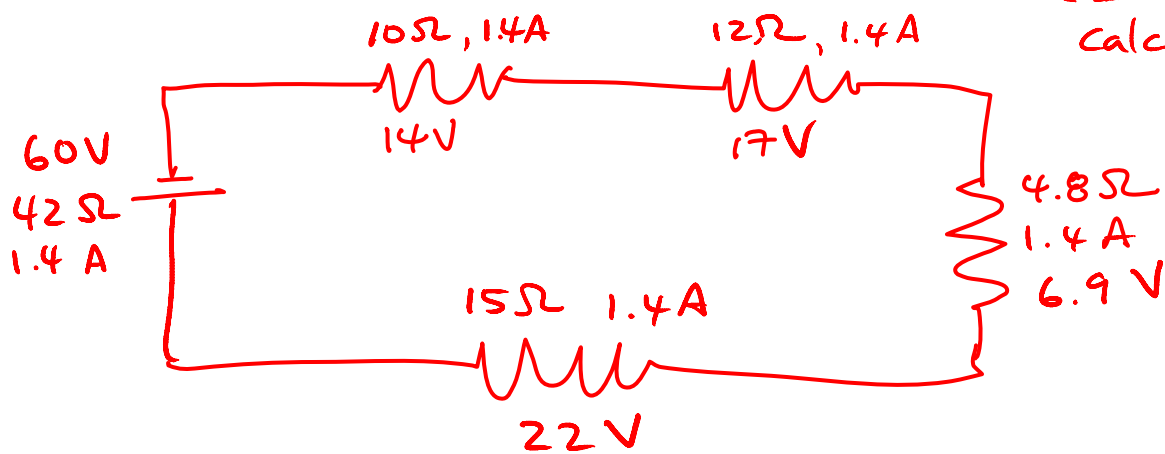


$$\rightarrow R_o = 10 + 12 + 4.8 + 15 = 42\Omega \quad (41.8)$$

$$\rightarrow I_o = \frac{60}{41.8} = 1.4\text{ A} \quad (1.44)$$

→ analyzing simplified diagram, current through each resistance = 1.44 A
(continued next page)

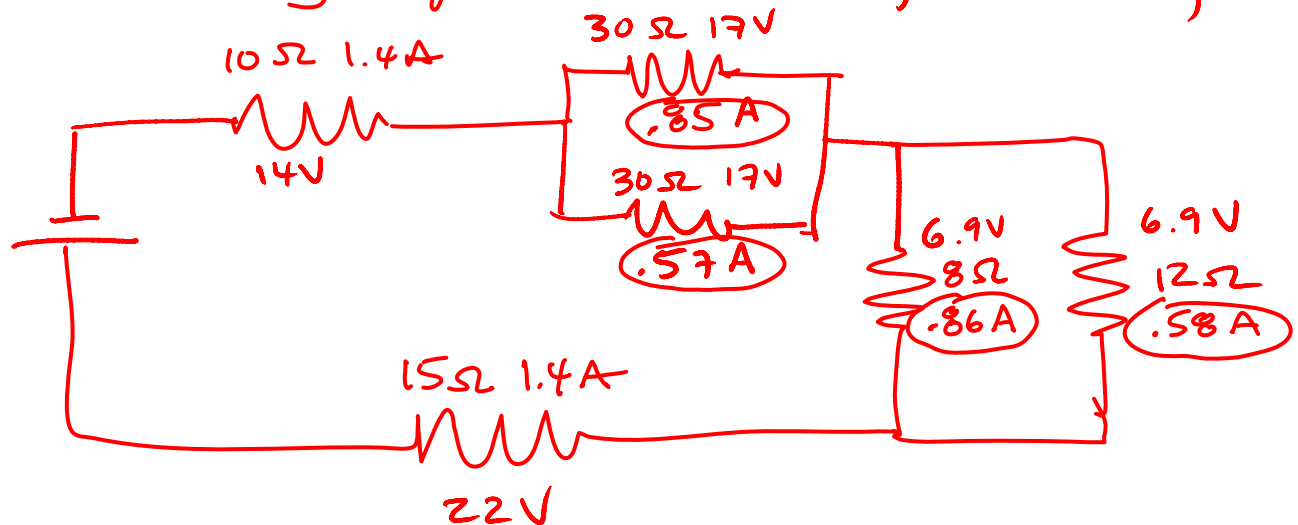
→ now find voltage drop for each resistance in simplified diagram, using $V = IR$
 (I = 1.44 A for calculations)



→ at this point, check voltage:

$$14 + 17 + 6.9 + 22 = 59.9 \sim 60 \text{ V } \checkmark$$

→ finally, go back to original diagram:



→ using voltage drops, and $I = \frac{V}{R}$, current through parallel resistors can be determined